

SEQUENCE LISTING

<110> AKZO Nobel N.V.

<120> Lawsonia intracellularis 26 kD subunit vaccine

<130> 2003.023

<160> 2

<170> PatentIn version 3.2

<210> 1

<211> 856

<212> DNA

<213> Lawsonia intracellularis

<220>

<221> CDS

<222> (80)..(823)

<400> 1

```

atggctataa gcgattgaat aacagaaaat aacacctatg cctgaaattt tcgacgcgtc      60
gaaattttta gaggaaacc atg aaa aaa cta ctc ctt ttg tta tct att ctg      112
                Met Lys Lys Leu Leu Leu Leu Leu Ser Ile Leu
                1                5                10

ttt cta acc cca agt att acc ttg gcg gaa ggt aat act ttc aat gat      160
Phe Leu Thr Pro Ser Ile Thr Leu Ala Glu Gly Asn Thr Phe Asn Asp
                15                20                25

agt ttc aac aag gct aag cgc ata ctg caa gat gag gtg tat tac gac      208
Ser Phe Asn Lys Ala Lys Arg Ile Leu Gln Asp Glu Val Tyr Tyr Asp
                30                35                40

cac caa gtt aca cta tac tgc gga tat gaa tat gat gac caa aaa agg      256
His Gln Val Thr Leu Tyr Cys Gly Tyr Glu Tyr Asp Asp Gln Lys Arg
                45                50                55

ata tgt ctc cct gat gga ttt ata gca gag aaa cat caa aaa aga tca      304
Ile Cys Leu Pro Asp Gly Phe Ile Ala Glu Lys His Gln Lys Arg Ser
60                65                70                75

tat aaa att gag tgg gaa cat agt gtg cct gct gag aat ttt ggc aga      352
Tyr Lys Ile Glu Trp Glu His Ser Val Pro Ala Glu Asn Phe Gly Arg
                80                85                90

gct ttt act gaa tgg cgc gaa ggt cat cct ctt tgt gta gat aat aaa      400
Ala Phe Thr Glu Trp Arg Glu Gly His Pro Leu Cys Val Asp Asn Lys
                95                100                105

ggt aaa agt ttc aaa gga cga aaa tgt gca gaa aaa gta aat aaa aca      448
Gly Lys Ser Phe Lys Gly Arg Lys Cys Ala Glu Lys Val Asn Lys Thr
                110                115                120

tat aga tat atg cag tct gat atg tac aat ttg ttt cca gca gtc ggg      496
Tyr Arg Tyr Met Gln Ser Asp Met Tyr Asn Leu Phe Pro Ala Val Gly
                125                130                135

tct gtc aat gct gcg aga agc aat aag caa tac tca gag tta ctt gga      544
Ser Val Asn Ala Ala Arg Ser Asn Lys Gln Tyr Ser Glu Leu Leu Gly
140                145                150                155

gtt caa tct gct ttt gga acg tgt gag gca aaa ata gat ggg aat aga      592
Val Gln Ser Ala Phe Gly Thr Cys Glu Ala Lys Ile Asp Gly Asn Arg
                160                165                170

```

```

ttc gaa cca ccg gat aga gct aaa ggt caa gta gcc cgt gct gct ctt      640
Phe Glu Pro Pro Asp Arg Ala Lys Gly Gln Val Ala Arg Ala Ala Leu
      175                      180                      185

tat atg gat aaa gag tac aag gaa tac aat cta agt cgt cag caa aga      688
Tyr Met Asp Lys Glu Tyr Lys Glu Tyr Asn Leu Ser Arg Gln Gln Arg
      190                      195                      200

aga ctt ttt gag gct tgg agt aat atg tat cca gtc gat gaa tgg gag      736
Arg Leu Phe Glu Ala Trp Ser Asn Met Tyr Pro Val Asp Glu Trp Glu
      205                      210                      215

tgt aca cga gcc aaa cga atc gaa tct ata cag gga aat gaa aat att      784
Cys Thr Arg Ala Lys Arg Ile Glu Ser Ile Gln Gly Asn Glu Asn Ile
      220                      225                      230                      235

ttt gta aaa aat atg tgt atc gaa aag ggg tta tgg taa acaaacgagg      833
Phe Val Lys Asn Met Cys Ile Glu Lys Gly Leu Trp
      240                      245

acaatataaa tactacctaa gta      856

```

```

<210> 2
<211> 247
<212> PRT
<213> Lawsonia intracellularis

```

```

<400> 2

```

```

Met Lys Lys Leu Leu Leu Leu Ser Ile Leu Phe Leu Thr Pro Ser
1      5      10      15

Ile Thr Leu Ala Glu Gly Asn Thr Phe Asn Asp Ser Phe Asn Lys Ala
      20      25      30

Lys Arg Ile Leu Gln Asp Glu Val Tyr Tyr Asp His Gln Val Thr Leu
      35      40      45

Tyr Cys Gly Tyr Glu Tyr Asp Asp Gln Lys Arg Ile Cys Leu Pro Asp
      50      55      60

Gly Phe Ile Ala Glu Lys His Gln Lys Arg Ser Tyr Lys Ile Glu Trp
      65      70      75      80

Glu His Ser Val Pro Ala Glu Asn Phe Gly Arg Ala Phe Thr Glu Trp
      85      90      95

Arg Glu Gly His Pro Leu Cys Val Asp Asn Lys Gly Lys Ser Phe Lys
      100      105      110

Gly Arg Lys Cys Ala Glu Lys Val Asn Lys Thr Tyr Arg Tyr Met Gln
      115      120      125

Ser Asp Met Tyr Asn Leu Phe Pro Ala Val Gly Ser Val Asn Ala Ala
      130      135      140

Arg Ser Asn Lys Gln Tyr Ser Glu Leu Leu Gly Val Gln Ser Ala Phe

```

145 150 155 160

Gly Thr Cys Glu Ala Lys Ile Asp Gly Asn Arg Phe Glu Pro Pro Asp
 165 170 175

Arg Ala Lys Gly Gln Val Ala Arg Ala Ala Leu Tyr Met Asp Lys Glu
 180 185 190

Tyr Lys Glu Tyr Asn Leu Ser Arg Gln Gln Arg Arg Leu Phe Glu Ala
 195 200 205

Trp Ser Asn Met Tyr Pro Val Asp Glu Trp Glu Cys Thr Arg Ala Lys
 210 215 220

Arg Ile Glu Ser Ile Gln Gly Asn Glu Asn Ile Phe Val Lys Asn Met
225 230 235 240

Cys Ile Glu Lys Gly Leu Trp
 245